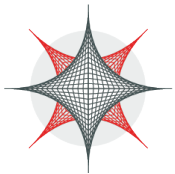
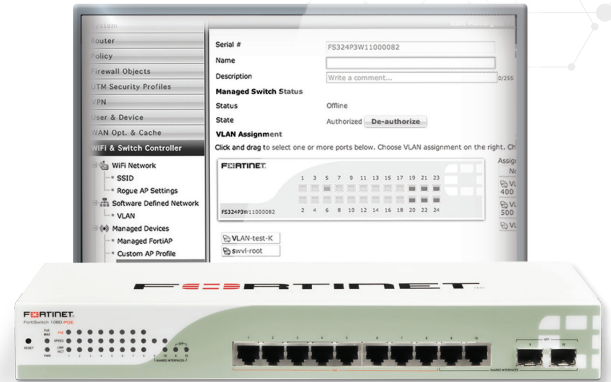


FortiSwitch™ Secure Access Series

FortiSwitch Secure Access switches deliver a Secure, Simple, Scalable Ethernet solution with outstanding security, performance and manageability for threat conscious small to mid-sized businesses, distributed enterprises and branch offices. Tightly integrated into the FortiGate® Network Security Platform, the FortiSwitch Secure Access switches can be managed directly from the familiar FortiGate interface. This single pane of glass management provides complete visibility and control of all users and devices on the network, regardless of how they connect.

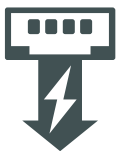


Security Fabric Integration

Reduces complexity and decreases management cost with network security functions managed through a single console via FortiGate.

This integration allows all users to be authenticated against the same user database, regardless of whether they connect to the wired or wireless network, including temporary guest users.

In addition, same security policy can apply to a user or device regardless of how or where they connect to the network.



Simplify Network Deployment

The Power over Ethernet (PoE) capability in some models, enables simple installation of wireless Access Points and IP phones in the network.

Product Offerings

FS-108E, 108E-POE, 108E-FPOE, 124E, 124E-POE, 124E-FPOE, 224D-FPOE, 248D, 224E, 224E-POE, 248E-POE, 248E-FPOE, 424D, 424D-POE, 424D-FPOE, 448D, 448D-POE, 448D-FPOE, 524D, 524D-FPOE, 548D and 548D-FPOE



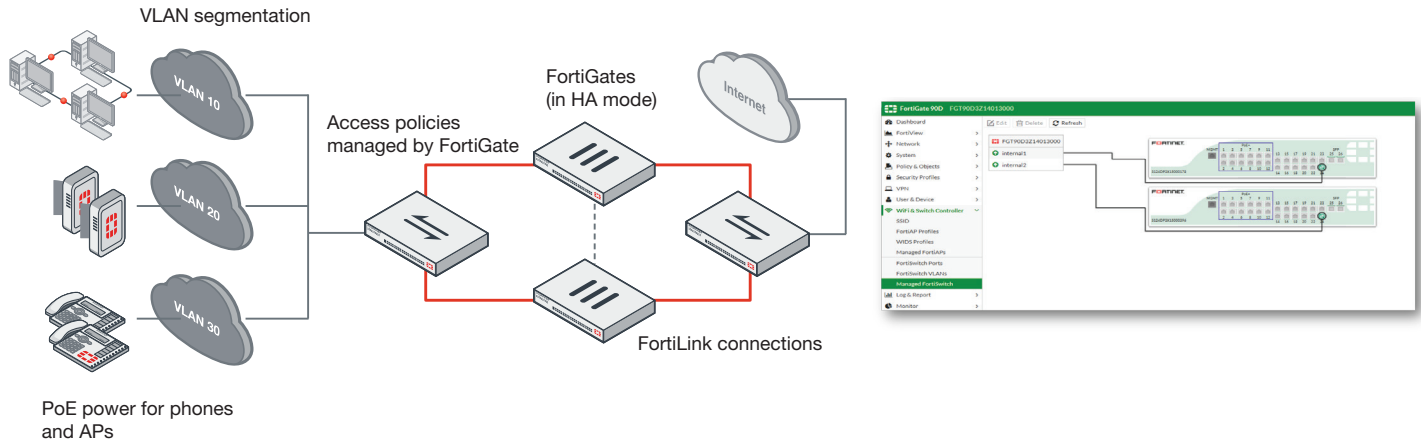
Highlights

- Secure Access switches suitable for wire closet and desktop installations
- Devices are identified and users authenticated prior to being granted access to the network
- Centralized security management and reporting from FortiGate interface
- Up to 48 ports in a compact 1 RU form factor
- Stackable up to 256 switches per FortiGate depending on model
- Power over Ethernet capable, including PoE+
- Ideal for converged network environments; enabling voice, data and wireless traffic to be delivered across a single network

DEPLOYMENT

FortiLink Mode

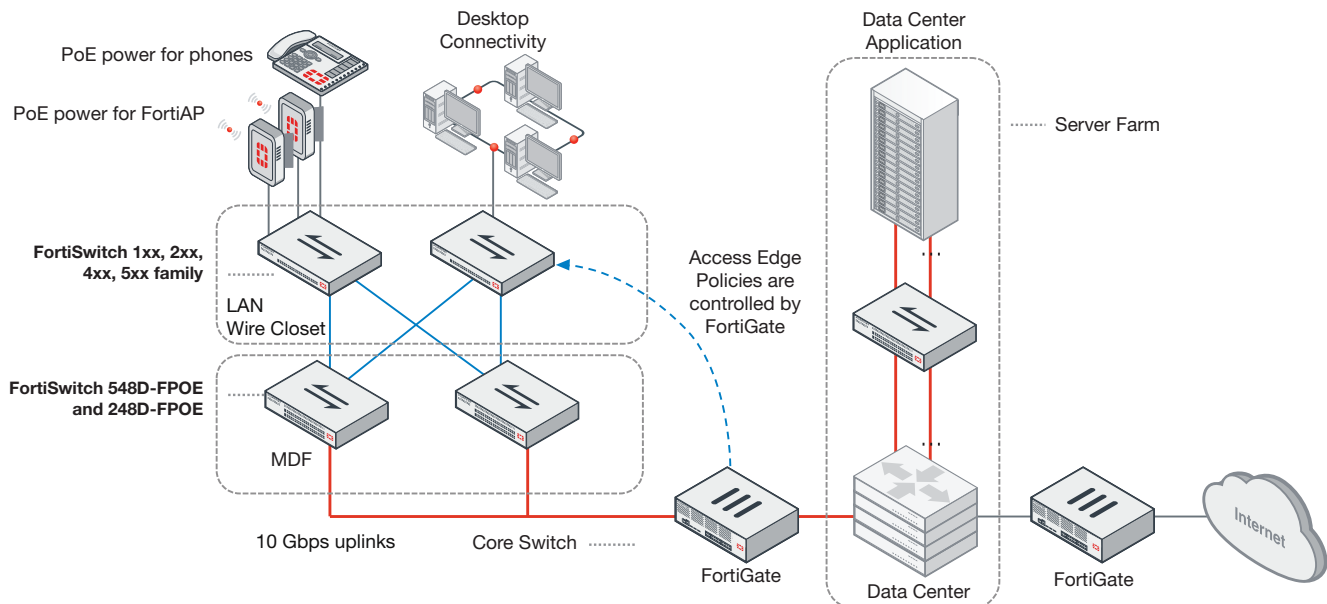
The FortiSwitch Secure Access Switch series integrates directly into the FortiGate* Connected UTM, with switch administration and access port security managed from the familiar FortiGate interface. Regardless of how users and devices connect to the network, you have complete visibility and control over your network security and access through this single pane of glass, perfectly suited to threatconscious organizations of any size.



* Selected models only

Standalone Mode

Virtualization and cloud computing have created dense high-bandwidth Ethernet networking requirements in the data center, pushing the limits of existing data center switching. FortiSwitch Data Center switches meet these challenges by providing a high performance 10 or 40 GE capable switching platform, with a low Total Cost of Ownership. Ideal for Top of Rack server or firewall aggregation applications, as well as enterprise network core or distribution deployments, these switches are purpose-built to meet the needs of today's bandwidth intensive environments.



FEATURES

FORTISWITCH FORTILINK MODE (WITH FORTIGATE)	
Management and Configuration	
Auto Discovery of Multiple Switches	Yes
Number of Managed Switches per FortiGate	8 to 256 Depending on FortiGate Model (Please refer to admin guide)
FortiLink Stacking (Auto Inter-Switch Links)	Yes
Software Upgrade of Switches	Yes
Centralized VLAN Configuration	Yes
Switch POE Control	Yes
Link Aggregation Configuration	Yes
Spanning Tree	Yes
LLDP/MED	Yes
IGMP Snooping	Yes (not supported on 1xxE-Series)
L3 Routing and Services	Yes (FortiGate)
Policy-Based Routing	Yes (FortiGate)
Virtual Domain	Yes (FortiGate)
Security and Visibility	
802.1x Authentication (Port-based, MAC-based, MAB)	Yes
Syslog Collection	Yes
DHCP Snooping	Yes
Device Detection	Yes
MAC Black/White Listing	Yes (FortiGate)
Policy Control of Users and Devices	Yes (FortiGate)
UTM Features	
Firewall	Yes (FortiGate)
IPC, AV, Application Control, Botnet	Yes (FortiGate)
High Availability	
Support FortiLink FortiGate in HA Cluster	Yes
LAG support for FortiLink Connection	Yes
Active-Active Split LAG from FortiGate to FortiSwitches for Advanced Redundancy	Yes (with FS-2xx, 4xx, 5xx)

	FORTISWITCH STANDALONE MODE	FORTISWITCH 2XXE SERIES	FORTISWITCH 1XXE SERIES
Layer 2			
Jumbo Frames	Yes	Yes	Yes
Auto-negotiation for Port Speed and Duplex	Yes	Yes	Yes
IEEE 802.1D MAC Bridging/STP	Yes	Yes	Yes
IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)	Yes	Yes	Yes
IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)	Yes	Yes	Yes
STP Root Guard	Yes	Yes	Yes
STP BPDU Guard	Yes	Yes	Yes
Edge Port / Port Fast	Yes	Yes	Yes
IEEE 802.1Q VLAN Tagging	Yes	Yes	Yes
Private VLAN	Yes	Yes	No
IEEE 802.3ad Link Aggregation with LACP	Yes	Yes	Yes
Unicast/Multicast traffic balance over trunking port (dst-ip, dst-mac, src-dst-ip, src-dst-mac, src-ip, src-mac)	Yes	Yes	Yes
IEEE 802.1AX Link Aggregation	Yes	Yes	Yes
Spanning Tree Instances (MSTP/CST)	15/1	15/1	15/1
IEEE 802.3x Flow Control and Back-pressure	Yes	Yes	Yes
IEEE 802.3 10Base-T	Yes	Yes	Yes
IEEE 802.3u 100Base-TX	Yes	Yes	Yes
IEEE 802.3z 1000Base-SX/LX	Yes	Yes	Yes
IEEE 802.3ab 1000Base-T	Yes	Yes	Yes
IEEE 802.3ae 10 Gigabit Ethernet	4xx and 5xx Family	N/A	N/A
IEEE 802.3 CSMA/CD Access Method and Physical Layer Specifications	Yes	Yes	Yes
Storm Control	Yes	Yes	Yes
MAC, IP, Ethertype-based VLANs	Yes	Yes	Yes
Virtual-Wire	Yes	Yes	No
Split Port (QSFP+ breakout to 4xSFP+)	FS-5xx Family	N/A	N/A
Time-Domain Reflectometry (TDR) Support	Yes	Yes	No

FEATURES

	FORTISWITCH STANDALONE MODE	FORTISWITCH 2XXE SERIES	FORTISWITCH 1XXE SERIES
Layer 3*			
Static Routing (Hardware-based)	Yes	Yes	N/A
Routing Entries	64 on FS-2xx, 4xx Family; 16K on FS-5xx Family	64	N/A
Host Entries	4K on FS-2xx, 4xx Family; 24K on FS-5xx Family	4K	N/A
Dynamic Routing Protocols**	OSPFv2, RIPv2, VRRP; BGP, ISIS on FS-5xx	OSPFv2, RIPv2, VRRP	N/A
Multicast Protocols	PIM-SSM on FS-5xx	N/A	N/A
ECMP	FS-5xx Family	No	N/A
Bidirectional Forwarding Detection (BFD)	Yes	Yes	N/A
DHCP Relay	Yes	Yes	N/A
Services			
IGMP Snooping	Yes	Yes	No
Security and Visibility			
Port Mirroring	Yes	Yes	Yes
Admin Authentication Via RFC 2865 RADIUS	Yes	Yes	Yes
IEEE 802.1x authentication Port-based	Yes	Yes	Yes
IEEE 802.1x Authentication MAC-based	Yes	Yes	Yes
IEEE 802.1x Guest and Fallback VLAN	Yes	Yes	Yes
IEEE 802.1x MAC Access Bypass (MAB)	Yes	Yes	Yes
IEEE 802.1x Dynamic VLAN Assignment	Yes	Yes	Yes
Radius CoA (Change of Authority)	Yes	Yes	No
Radius Accounting	Yes	Yes	No
MAC-IP Binding	5xx only	No	No
sFlow	Yes	Yes	No
ACL	1K entries on FS-5xx Family; 512 on FS-1xx, 2xx, 4xx Families	512 Entries	No
IEEE 802.1ab Link Layer Discovery Protocol (LLDP)	Yes	Yes	Yes
IEEE 802.1ab LLDP-MED	Yes	Yes	Yes
DHCP-Snooping	Yes	Yes	Yes
Dynamic ARP Inspection	Yes	Yes	No
Sticky MAC and MAC Limit	Yes (2xx, 4xx and 5xx)	Yes	Yes
High Availability			
Multi-Chassis Link Aggregation (MCLAG)	Yes (2xx, 4xx and 5xx)	Yes	N/A
Quality of Service			
IEEE 802.1p Based Priority Queuing	Yes (2xx, 4xx and 5xx)	Yes	No
IP TOS/DSCP Based Priority Queuing	Yes (2xx, 4xx and 5xx)	Yes	No
Management			
IPv4 and IPv6 Management	Yes	Yes	Yes
Telnet / SSH	Yes	Yes	Yes
HTTP / HTTPS	Yes	Yes	Yes
SNMP v1/v2c/v3	Yes	Yes	Yes
SNTP	Yes	Yes	Yes
Standard CLI and Web GUI Interface	Yes	Yes	Yes
Software download/upload: TFTP/FTP/GUI	Yes	Yes	Yes
Managed from FortiGate	Yes	Yes	Yes
Support for HTTP REST APIs for Configuration and Monitoring	Yes	Yes	Yes
Additional RFC and MIB Support			
RFC 2571 Architecture for Describing SNMP	Yes	Yes	Yes
DHCP Client	Yes	Yes	Yes
RFC 854 Telnet Server	Yes	Yes	Yes
RFC 2865 RADIUS	Yes	Yes	Yes
RFC 1643 Ethernet-like Interface MIB	Yes	Yes	Yes
RFC 1213 MIB-II	Yes	Yes	Yes
RFC 1354 IP Forwarding Table MIB	Yes	Yes	Yes
RFC 2572 SNMP Message Processing and Dispatching	Yes	Yes	Yes
RFC 1573 SNMP MIB II	Yes	Yes	Yes
RFC 1157 SNMPv1/v2c	Yes	Yes	Yes
RFC 2030 SNTP	Yes	Yes	Yes

* Supported on 2xx, 4xx and 5xx. ** Requires 'Advanced Features' License.

SPECIFICATIONS

	FORTISWITCH 108E	FORTISWITCH 108E-POE	FORTISWITCH 108E-FPOE
Hardware Specifications			
Total Network Interfaces	7x GE RJ45, 1x GE/PoE-PD RJ45 and 2x GE SFP	8x GE RJ45 and 2x GE SFP	8x GE RJ45 and 2x GE SFP
Dedicated Management 10/100 Port	0	0	0
RJ-45 Serial Console Port	1	1	1
Form Factor	Desktop	1 RU Rack Mount	1 RU Rack Mount
Power over Ethernet (PoE) Ports	0	4 (802.3af/at)	8 (802.3af/at)
PoE Power Budget	0	65 W	130 W
Mean Time Between Failures	> 10 years	> 10 years	> 10 years
System Specifications			
Switching Capacity (Duplex)	20 Gbps	20 Gbps	20 Gbps
Packets Per Second (Duplex)	30 Mpps	30 Mpps	30 Mpps
MAC Address Storage	8 K	8 K	8 K
Network Latency	4µs	4µs	4µs
VLANs Supported	4 K	4 K	4 K
Link Aggregation Group Size	8	8	8
Total Link Aggregation Groups	8	8	8
Packet Buffers	512 KB	512 KB	512 KB
DRAM	256 MB DDR3	256 MB DDR3	256 MB DDR3
FLASH	32 MB	32 MB	32 MB
Dimensions			
Height x Depth x Width (inches)	1.5 x 6.3 x 8.7	1.7 x 8.2 x 13	1.7 x 8.2 x 13
Height x Depth x Width (mm)	38 x 160 x 220	44 x 209 x 330	44 x 209 x 330
Weight	2.2 lbs (1 kg)	4.3 lbs (1.95 kg)	4.5 lbs (2.04 kg)
Environment			
Power Required	100–240V AC, 50–60 Hz / PoE-PSE(af)	100–240V AC, 50–60 Hz	100–240V AC, 50–60 Hz
Power Supply	AC & PoE-PD Built in	AC Built in	AC Built in
Redundant Power	—	—	—
Power Consumption (Average / Maximum)	5.54 W / 6.26 W	70.19 W / 71.10 W	135.19 W / 136.10 W
Heat Dissipation	18.9 BTU/h	17.7 BTU/h	17.7 BTU/h
Operating Temperature	32–104°F (0–40°C)	32–104°F (0–40°C)	32–104°F (0–40°C)
Storage Temperature	-40–158°F (-40–70°C)	-40–158°F (-40–70°C)	-40–158°F (-40–70°C)
Humidity	10–90% non-condensing	10–90% non-condensing	10–90% non-condensing
Certification and Compliance			
		FCC, CE, RCM, VCCI, BSMI, UL, CB, RoHS2	
Warranty			
Fortinet Warranty		Limited lifetime* warranty on all models	

* Fortinet Warranty Policy: <http://www.fortinet.com/doc/legal/EULA.pdf>



FortiSwitch 108E



FortiSwitch 108E-POE



FortiSwitch 108E-FPOE

SPECIFICATIONS

	FORTISWITCH 124E	FORTISWITCH 124E-POE	FORTISWITCH 124E-FPOE
Hardware Specifications			
Total Network Interfaces	24x GE RJ45 and 4x GE SFP	24x GE RJ45 and 4x GE SFP	24x GE RJ45 and 4x GE SFP
Dedicated Management 10/100 Port	0	0	0
RJ-45 Serial Console Port	1	1	1
Form Factor	1 RU Rack Mount	1 RU Rack Mount	1 RU Rack Mount
Power over Ethernet (PoE) Ports	0	12 (802.3af/at)	24 (802.3af/at)
PoE Power Budget	0	185 W	370 W
Mean Time Between Failures	> 10 years	> 10 years	> 10 years
System Specifications			
Switching Capacity (Duplex)	56 Gbps	56 Gbps	56 Gbps
Packets Per Second (Duplex)	83 Mpps	83 Mpps	83 Mpps
MAC Address Storage	8 K	8 K	8 K
Network Latency	4µs	4µs	4µs
VLANs Supported	4 K	4 K	4 K
Link Aggregation Group Size	8	8	8
Total Link Aggregation Groups	8	8	8
Packet Buffers	512 KB	512 KB	512 KB
DRAM	256 MB DDR3	256 MB DDR3	256 MB DDR3
FLASH	32 MB	32 MB	32 MB
Dimensions			
Height x Depth x Width (inches)	1.7 x 8.2 x 13	1.7 x 12.2 x 17.3	1.7 x 12.2 x 17.3
Height x Depth x Width (mm)	44 x 209 x 330	44 x 309 x 440	44 x 309 x 440
Weight	4.7 lbs (2.13 kg)	11.1 lbs (5.03 kg)	11.2 lbs (5.03 kg)
Environment			
Power Required	100–240V AC, 50–60 Hz	100–240V AC, 50–60 Hz	100–240V AC, 50–60 Hz
Power Supply	AC Built in	AC Built in	AC Built in
Redundant Power	—	—	—
Power Consumption (Average / Maximum)	15.83 W / 17.79 W	202.78 W / 205.45 W	387.78 W / 390.45 W
Heat Dissipation	54 BTU/h	60.67 BTU/h	60.67 BTU/h
Operating Temperature	32–104°F (0–40°C)	32–104°F (0–40°C)	32–104°F (0–40°C)
Storage Temperature	-40–158°F (-40–70°C)	-40–158°F (-40–70°C)	-40–158°F (-40–70°C)
Humidity	10–90% non-condensing	10–90% non-condensing	10–90% non-condensing
Certification and Compliance			
FCC, CE, RCM, VCCI, BSMI, UL, CB, RoHS2			
Warranty			
Fortinet Warranty		Limited lifetime* warranty on all models	

* Fortinet Warranty Policy: <http://www.fortinet.com/doc/legal/EULA.pdf>



FortiSwitch 124E



FortiSwitch 124E-POE



FortiSwitch 124E-FPOE

SPECIFICATIONS

	FORTISWITCH 224D-FPOE	FORTISWITCH 224E	FORTISWITCH 224E-POE
Hardware Specifications			
Total Network Interfaces	24x GE RJ45 ports and 4x GE SFP ports	24x GE RJ45 ports and 4x GE SFP ports	24x GE RJ45 ports and 4x GE SFP ports
Dedicated Management 10/100 Port	1	1	1
RJ-45 Serial Console Port	1	1	1
Form Factor	1 RU Rack Mount	1 RU Rack Mount	1 RU Rack Mount
Power over Ethernet (PoE) Ports	24 (802.3at/802.3af)	NA	12 (802.3at/802.3af)
PoE Power Budget	370 W	NA	180 W
Mean Time Between Failures	> 10 years	> 10 years	> 10 years
System Specifications			
Switching Capacity (Duplex)	56 Gbps	56 Gbps	56 Gbps
Packets Per Second (Duplex)	83 Mpps	83 Mpps	83 Mpps
MAC Address Storage	16 K	16 K	16 K
Network Latency	< 1µs	< 1µs	< 1µs
VLANs Supported	4 K	4 K	4 K
Link Aggregation Group Size	8	8	8
Total Link Aggregation Groups	Up to number of ports	Up to number of ports	Up to number of ports
Packet Buffers	1.5 MB	1.5 MB	1.5 MB
DRAM	512 MB	512 MB	512 MB
FLASH	128 MB	128 MB	128 MB
Dimensions			
Height x Depth x Width (inches)	1.73 x 12.2 x 17.5	1.73 x 9 x 12.99	1.73 x 9 x 12.99
Height x Depth x Width (mm)	44 x 310 x 440	44 x 230 x 330	44 x 230 x 330
Weight	10.64 lbs (4.83 kg)	4.78 lbs (2.17 kg)	5.37 lbs (2.44 kg)
Environment			
Power Required	100–240V AC, 50–60 Hz	100–240V AC, 50–60 Hz	100–240V AC, 50–60 Hz
Power Supply	AC built in	AC built in	AC built in
Redundant Power	Optional FRPS-740	Redundant AC	Optional FRPS-740
Power Consumption (Average / Maximum)	380 W / 397 W	17.2 W / 17.3 W	220.18 W / 223.57 W
Heat Dissipation	85 BTU/h	59.095 BTU/h	74.29554 BTU/h
Operating Temperature	32–122°F (0–50°C)	32–122°F (0–50°C)	32–122°F (0–50°C)
Storage Temperature	–4–158°F (-20–70°C)	–4–158°F (-20–70°C)	–4–158°F (-20–70°C)
Humidity	10–90% non-condensing	10–90% non-condensing	10–90% non-condensing
Certification and Compliance			
FCC, CE, RCM, VCCI, BSMI, UL, CB, RoHS2			
Warranty			
Fortinet Warranty		Limited lifetime* warranty on all models	

* Fortinet Warranty Policy: <http://www.fortinet.com/doc/legal/EULA.pdf>



FortiSwitch 224D-FPOE



FortiSwitch 224E



FortiSwitch 224E-POE

SPECIFICATIONS

	FORTISWITCH 248D	FORTISWITCH 248E-POE	FORTISWITCH 248E-FPOE
Hardware Specifications			
Total Network Interfaces	48x GE RJ45 ports and 4x GE SFP ports	48x GE RJ45 ports and 4x GE SFP ports	48x GE RJ45 ports and 4x GE SFP ports
Dedicated Management 10/100 Port	1	1	1
RJ-45 Serial Console Port	1	1	1
Form Factor	1 RU Rack Mount	1 RU Rack Mount	1 RU Rack Mount
Power over Ethernet (PoE) Ports	—	24 (802.3at/802.3af)	48 (802.3at/802.3af)
PoE Power Budget	N/A	370 W	740 W
Mean Time Between Failures	> 10 years	> 10 years	> 10 years
System Specifications			
Switching Capacity (Duplex)	104 Gbps	104 Gbps	104 Gbps
Packets Per Second (Duplex)	155 Mpps	155 Mpps	155 Mpps
MAC Address Storage	16 K	16 K	16 K
Network Latency	< 1µs	< 1µs	< 1µs
VLANs Supported	4 K	4 K	4 K
Link Aggregation Group Size	8	8	8
Total Link Aggregation Groups	Up to number of ports	Up to number of ports	Up to number of ports
Packet Buffers	1.5 MB	1.5 MB	1.5 MB
DRAM	512 MB	512 MB	512 MB
FLASH	128 MB	128 MB	128 MB
Dimensions			
Height x Depth x Width (inches)	1.73 x 9.68 x 17.3	1.73 x 16.1 x 17.3	1.73 x 16.1 x 17.3
Height x Depth x Width (mm)	44 x 246 x 440	44 x 410 x 440	44 x 410 x 440
Weight	7.81 lbs (3.54 kg)	12.12 lbs (5.5 kg)	13.44 lbs (6.1 kg)
Environment			
Power Required	100–240V AC, 50–60 Hz	100–240V AC, 50–60 Hz	100–240V AC, 50–60 Hz
Power Supply	AC built in	AC built in	AC built in
Redundant Power	—	Optional FRPS-740	Optional FRPS-740
Power Consumption (Average / Maximum)	38.66 W / 39.19 W	457.46 W / 466.47 W	842 W / 855.02 W
Heat Dissipation	134 BTU/h	177.14268 BTU/h	162.87865 BTU/h
Operating Temperature	32–122°F (0–50°C)	32–122°F (0–50°C)	32–122°F (0–50°C)
Storage Temperature	–4–158°F (–20–70°C)	–4–158°F (–20–70°C)	–4–158°F (–20–70°C)
Humidity	10–90% non-condensing	10–90% non-condensing	10–90% non-condensing
Certification and Compliance			
		FCC, CE, RCM, VCCI, BSMI, UL, CB, RoHS2	
Warranty			
Fortinet Warranty		Limited lifetime* warranty on all models	

* Fortinet Warranty Policy: <http://www.fortinet.com/doc/legal/EULA.pdf>



FortiSwitch 248D



FortiSwitch 248E-POE



FortiSwitch 248E-FPOE

SPECIFICATIONS

	FORTISWITCH 424D	FORTISWITCH 424D-POE	FORTISWITCH 424D-FPOE
Hardware Specifications			
Total Network Interfaces	24x GE RJ45 and 2x10 GE SFP+ ports Note: SFP+ ports are compatible with 1 GE SFP	24x GE RJ45 and 2x10 GE SFP+ ports Note: SFP+ ports are compatible with 1 GE SFP	24x GE RJ45 and 2x10 GE SFP+ ports Note: SFP+ ports are compatible with 1 GE SFP
Dedicated Management 10/100 Port	1	1	1
RJ-45 Serial Console Port	1	1	1
Form Factor	1 RU Rack Mount	1 RU Rack Mount	1 RU Rack Mount
Power over Ethernet (PoE) Ports	—	24 (802.3af/at)	24 (802.3af/at)
PoE Power Budget	N/A	185 W	370 W
Mean Time Between Failures	> 10 years	> 10 years	> 10 years
System Specifications			
Switching Capacity (Duplex)	88 Gbps	88 Gbps	88 Gbps
Packets Per Second (Duplex)	131 Mpps	131 Mpps	131 Mpps
MAC Address Storage	16 K	16 K	16 K
Network Latency	< 1μs	< 1μs	< 1μs
VLANs Supported	4 K	4 K	4 K
Link Aggregation Group Size	8	8	8
Total Link Aggregation Groups	Up to number of ports	Up to number of ports	Up to number of ports
Packet Buffers	1.5 MB	1.5 MB	1.5 MB
DRAM	1 GB	1 GB	1 GB
FLASH	128 MB	128 MB	128 MB
Dimensions			
Height x Depth x Width (inches)	1.75 x 10.12 x 17.3	1.75 x 10.12 x 17.3	1.73 x 12.2 x 17.5
Height x Depth x Width (mm)	44 x 250 x 440	44 x 250 x 440	44 x 310 x 440
Weight	7.14 lbs (3.24 kg)	8.42 lbs (3.82 kg)	10.64 lbs (4.83 kg)
Environment			
Power Required	100–240V AC, 50–60 Hz	100–240V AC, 50–60 Hz	100–240V AC, 50–60 Hz
Power Supply	AC built in	AC built in	AC built in
Redundant Power	Dual power supplies	Optional FRPS-740	Optional FRPS-740
Power Consumption (Average / Maximum)	17.3 W / 17.2 W	208 W / 210 W	397 W / 403 W
Heat Dissipation	69 BTU/h	89 BTU/h	100 BTU/h
Operating Temperature	32–122°F (0–50°C)	32–122°F (0–50°C)	32–122°F (0–50°C)
Storage Temperature	–4–158°F (–20–70°C)	–4–158°F (–20–70°C)	–4–158°F (–20–70°C)
Humidity	10–90% non-condensing	10–90% non-condensing	10–90% non-condensing
Certification and Compliance			
FCC, CE, RCM, VCCI, BSMI, UL, CB, RoHS2			
Warranty			
Fortinet Warranty		Limited lifetime* warranty on all models	

* Fortinet Warranty Policy: <http://www.fortinet.com/doc/legal/EULA.pdf>



FortiSwitch 424D



FortiSwitch 424D-POE



FortiSwitch 424D-FPOE

SPECIFICATIONS

	FORTISWITCH 448D	FORTISWITCH 448D-POE	FORTISWITCH 448D-FPOE
Hardware Specifications			
Total Network Interfaces	48x GE RJ45 and 4x10 GE SFP+ ports Note: SFP+ ports are compatible with 1 GE SFP	48x GE RJ45 and 4x10 GE SFP+ ports Note: SFP+ ports are compatible with 1 GE SFP	48x GE RJ45 and 4x10 GE SFP+ ports Note: SFP+ ports are compatible with 1 GE SFP
Dedicated Management 10/100 Port	1	1	1
RJ-45 Serial Console Port	1	1	1
Form Factor	1 RU Rack Mount	1 RU Rack Mount	1 RU Rack Mount
Power over Ethernet (PoE) Ports	—	48 (802.3af/at)	48 (802.3af/at)
PoE Power Budget	N/A	370 W	740 W
Mean Time Between Failures	> 10 years	> 10 years	> 10 years
System Specifications			
Switching Capacity (Duplex)	176 Gbps	176 Gbps	176 Gbps
Packets Per Second (Duplex)	262 Mpps	262 Mpps	262 Mpps
MAC Address Storage	16 K	16 K	16 K
Network Latency	< 1μs	< 1μs	< 1μs
VLANs Supported	4 K	4 K	4 K
Link Aggregation Group Size	8	8	8
Total Link Aggregation Groups	Up to number of ports	Up to number of ports	Up to number of ports
Packet Buffers	1.5 MB	1.5 MB	1.5 MB
DRAM	1 GB	1 GB	1 GB
FLASH	128 MB	128 MB	128 MB
Dimensions			
Height x Depth x Width (inches)	1.75 x 12.2 x 17.3	1.73 x 16.1 x 17.3	1.73 x 16.1 x 17.3
Height x Depth x Width (mm)	44 x 310 x 440	44 x 410 x 440	44 x 410 x 440
Weight	9.15 lbs (4.15 kg)	13.44 lbs (6.1 kg)	15.45 lbs (7.01 kg)
Environment			
Power Required	100–240V AC, 50–60 Hz	100–240V AC, 50–60 Hz	100–240V AC, 50–60 Hz
Power Supply	AC built in	AC built in	AC built in
Redundant Power	Dual power supplies	Optional FRPS-740	Dual power supplies
Power Consumption (Average / Maximum)	38 W / 38 W	417 W / 419 W	790 W / 792 W
Heat Dissipation	147 BTU/h	177 BTU/h	193 BTU/h
Operating Temperature	32–122°F (0–50°C)	32–122°F (0–50°C)	32–122°F (0–50°C)
Storage Temperature	–4–158°F (-20–70°C)	–4–158°F (-20–70°C)	–4–158°F (-20–70°C)
Humidity	10–90% non-condensing	10–90% non-condensing	10–90% non-condensing
Certification and Compliance			
FCC, CE, RCM, VCCI, BSMI, UL, CB, RoHS2			
Warranty			
Fortinet Warranty		Limited lifetime* warranty on all models	

* Fortinet Warranty Policy: <http://www.fortinet.com/doc/legal/EULA.pdf>



FortiSwitch 448D



FortiSwitch 448D-POE



FortiSwitch 448D-FPOE

SPECIFICATIONS

	FORTISWITCH 524D	FORTISWITCH 524D-FPOE	FORTISWITCH 548D	FORTISWITCH 548D-FPOE
Hardware Specifications				
Total Network Interfaces	24 GE/RJ45 ports, 4x 10 GE SFP+ ports and 2x 40 GE QSFP Note: SFP+ ports are compatible with 1G SFP	24 GE/RJ45 ports, 4x 10 GE SFP+ ports and 2x 40 GE QSFP Note: SFP+ ports are compatible with 1G SFP	48x GE/RJ45 ports, 4x 10 GE SFP+ ports and 2x 40 GE QSFP Note: SFP+ ports are compatible with 1G SFP	48x GE/RJ45 ports, 4x 10 GE SFP+ ports and 2x 40 GE QSFP Note: SFP+ ports are compatible with 1G SFP
Dedicated Management 10/100/1000 Ports	1	1	1	1
RJ-45 Serial Console Port	1	1	1	1
Form Factor	1 RU Rack Mount	1 RU Rack Mount	1 RU Rack Mount	1 RU Rack Mount
Power over Ethernet (PoE) Ports	N/A	24 (802.3af/at)	N/A	48 (802.3af/at)
PoE Power Budget	N/A	400 W	N/A	750 W
Mean Time Between Failures	> 10 years	> 10 years	> 10 years	> 10 years
System Specifications				
Switching Capacity (Duplex)	288 Gbps	288 Gbps	336 Gbps	336 Gbps
Packets Per Second (Duplex)	428 Mpps	428 Mpps	512 Mpps	512 Mpps
MAC Address Storage	96 K	96 K	96 K	96 K
Network Latency	< 2µs	< 2µs	< 2µs	< 2µs
VLANs Supported	4 K	4 K	4 K	4 K
Link Aggregation Group Size	24	24	48	48
Total Link Aggregation Groups	Up to number of ports	Up to number of ports	Up to number of ports	Up to number of ports
Packet Buffers	4 MB	4 MB	4 MB	4 MB
DRAM	2 GB	2 GB	2 GB	2 GB
FLASH	128 MB	128 MB	128 MB	128 MB
Dimensions				
Height x Depth x Width (inches)	1.75 x 13.8 x 17.3	1.75 x 13.8 x 17.3	1.75 x 13.8 x 17.3	1.75 x 13.8 x 17.3
Height x Depth x Width (mm)	44 x 350 x 439	44 x 350 x 439	44 x 350 x 439	44 x 350 x 439
Weight	13.6 lbs (6.2 kg)	15.74 lbs (7.14 kg)	14.1 lbs (6.4 kg)	15.74 lbs (7.14 kg)
Environment				
Power Required	100–240V AC, 50–60 Hz	100–240V AC, 50–60 Hz	100–240V AC, 50–60 Hz	100–240V AC, 50–60 Hz
Power Supply	150 W AC PSU	600 W AC PSU	150 W AC PSU	920 W AC PSU
Redundant Power	Optional FS-PSU-150 (for 150 W backup only)	Optional FS-PSU-600 (for 600 W for additional PoE)	Optional FS-PSU-150 (for 150 W backup only)	Optional FS-PSU-900 (for 900 W for additional PoE)
Power Consumption (Average / Maximum)	73 W / 75 W	570 W / 579 W (full PoE load)	74 W / 77 W	925 W / 961 W (full PoE load)
Heat Dissipation	247 BTU/h	296 BTU/h (full PoE loading)	252 BTU/h	318 BTU/h (full PoE loading)
Operating Temperature	32–113°F (0–45°C)	32–113°F (0–45°C)	32–113°F (0–45°C)	32–113°F (0–45°C)
Storage Temperature	-40–158°F (-40–70°C)	-40–158°F (-40–70°C)	-40–158°F (-40–70°C)	-40–158°F (-40–70°C)
Humidity	5–95% non-condensing	5–95% non-condensing	5–95% non-condensing	5–95% non-condensing
Certification and Compliance				
FCC, CE, RoHS, VCCI, BSMI, UL, CB, RoHS2				
Warranty				
Fortinet Warranty		Limited lifetime* warranty on all models		

* Fortinet Warranty Policy: <http://www.fortinet.com/doc/legal/EULA.pdf>



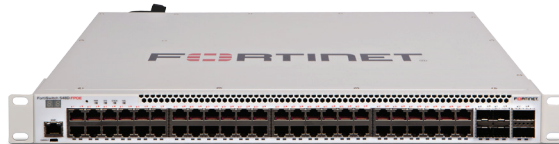
FortiSwitch 524D



FortiSwitch 524D-FPOE



FortiSwitch 548D



FortiSwitch 548D-FPOE

ORDER INFORMATION

Product	SKU	Description
FortiSwitch 108E	FS-108E	Layer 2 FortiGate switch controller compatible switch with 8 GE RJ45 + 2 SFP ports, line AC and PSE dual powered. Fanless.
FortiSwitch 108E-POE	FS-108E-POE	Layer 2 FortiGate switch controller compatible PoE+ switch with 8 GE RJ45 + 2 SFP ports, 4 port PoE with maximum 65 W PoE limit. Fanless.
FortiSwitch 108E-FPOE	FS-108E-FPOE	Layer 2 FortiGate switch controller compatible PoE+ switch with 8 GE RJ45 + 2 SFP ports, 8 port PoE with maximum 130 W PoE limit. Fanless.
FortiSwitch 124E	FS-124E	Layer 2 FortiGate switch controller compatible switch with 24 GE RJ45 + 4 SFP ports. Fanless.
FortiSwitch 124E-POE	FS-124E-POE	Layer 2 FortiGate switch controller compatible PoE+ switch with 24 GE RJ45 + 4 SFP ports, 12 port PoE with maximum 185 W limit.
FortiSwitch 124E-F-POE	FS-124E-FPOE	Layer 2 FortiGate switch controller compatible PoE+ switch with 24 GE RJ45 + 4 SFP ports, 24 port PoE with maximum 370 W limit.
FortiSwitch 224D-FPOE	FS-224D-FPOE	Layer 2/3 FortiGate switch controller compatible PoE+ switch with 24 GE RJ45 + 4 SFP ports, 24 port PoE with maximum 370 W limit.
FortiSwitch 248D	FS-248D	Layer 2/3 FortiGate switch controller compatible switch with 48 GE RJ45 + 4 SFP ports.
FortiSwitch 224E	FS-224E	Layer 2/3 FortiGate switch controller compatible switch with 24 GE RJ45 + 4 SFP ports.
FortiSwitch 224E-POE	FS-224E-POE	Layer 2/3 FortiGate switch controller compatible PoE+ switch with 24 GE RJ45 + 4 SFP ports, 12 port PoE with maximum 180 W limit.
FortiSwitch 248E-POE	FS-248E-POE	Layer 2/3 FortiGate switch controller compatible PoE+ switch with 48 GE RJ45 + 4 SFP ports, 24 port PoE with maximum 370 W limit.
FortiSwitch 248E-FPOE	FS-248E-FPOE	Layer 2/3 FortiGate switch controller compatible PoE+ switch with 48 GE RJ45 + 4 SFP ports, 48 port PoE with maximum 740 W limit.
FortiSwitch 424D	FS-424D	Layer 2/3 FortiGate switch controller compatible switch with 24 GE RJ45 + 2x 10 GE SFP+ ports.
FortiSwitch 424D-POE	FS-424D-POE	Layer 2/3 FortiGate switch controller compatible PoE+ switch with 24 GE RJ45 + 2x 10 GE SFP+ ports, 24 port PoE with maximum 185 W limit.
FortiSwitch 424D-FPOE	FS-424D-FPOE	Layer 2/3 FortiGate switch controller compatible PoE+ switch with 24 GE RJ45 + 2x 10 GE SFP+ ports, 24 port PoE with maximum 370 W limit.
FortiSwitch 448D	FS-448D	Layer 2/3 FortiGate switch controller compatible switch with 48 GE RJ45 + 4x 10 GE SFP+ ports.
FortiSwitch 448D-POE	FS-448D-POE	Layer 2/3 FortiGate switch controller compatible PoE+ switch with 48 GE RJ45 + 4x 10 GE SFP+ ports, 48 port PoE with maximum 370 W limit.
FortiSwitch 448D-FPOE	FS-448D-FPOE	Layer 2/3 FortiGate switch controller compatible PoE+ switch with 48 GE RJ45 + 4x 10 GE SFP+ ports, 48 port PoE with maximum 740 W limit.
FortiSwitch 524D	FS-524D	Layer 2/3 FortiGate switch controller compatible switch with 24 GE RJ45, 4x 10 GE SFP+ and 2x 40 GE QSFP+ ports.
FortiSwitch 524D-FPOE	FS-524D-FPOE	Layer 2/3 FortiGate switch controller compatible PoE+ switch with 24 GE RJ45, 4x 10 GE SFP+, 2x 40 GE QSFP+ ports, 24 port PoE with maximum 400 W limit.
FortiSwitch 548D	FS-548D	Layer 2/3 FortiGate switch controller compatible switch with 48 GE RJ45, 4x 10 GE SFP+ and 2x 40 GE QSFP+ ports.
FortiSwitch 548D-FPOE	FS-548D-FPOE	Layer 2/3 FortiGate switch controller compatible PoE+ switch with 48 GE RJ45, 4x 10 GE SFP+ and 2x 40 GE QSFP+ ports, 48 port PoE with maximum 750 W limit.
Accessories		
FortiSwitch Advanced Features License	FS-SW-LIC-200	SW License for FS-200 Series Switches to activate Advanced Features.
	FS-SW-LIC-400	SW License for FS-400 Series Switches to activate Advanced Features.
	FS-SW-LIC-500	SW License for FS-500 Series Switches to activate Advanced Features.
External Redundant AC Power Supply	FRPS-740	Redundant AC power supply for up to 2 units: FS-224D-FPOE, FS-248D-FPOE, FS-424D-FPOE, FS-448D-POE and FS-424D-POE.
Redundant AC Power Supply	FS-PSU-150	AC power supply for FS-548D and FS-524D.
	FS-PSU-600	AC power supply for FS-524D-FPOE.*
	FS-PSU-900	AC power supply for FS-548D-FPOE.*
1 GE SFP LX Transceiver Module	FG-TRAN-LX	1 GE SFP LX transceiver module for all systems with SFP and SFP/SFP+ slots.
1 GE SFP RJ45 Transceiver Module	FG-TRAN-GC	1 GE SFP RJ45 transceiver module for all systems with SFP and SFP/SFP+ slots.
1 GE SFP SX Transceiver Module	FG-TRAN-SX	1 GE SFP SX transceiver module for all systems with SFP and SFP/SFP+ slots.
10 GE SFP+ Transceiver Module, Short Range	FG-TRAN-SFP+SR	10 GE SFP+ transceiver module, short range for all systems with SFP+ and SFP/SFP+ slots.
10 GE SFP+ Transceiver Module, Long Range	FG-TRAN-SFP+LR	10 GE SFP+ transceiver module, long range for all systems with SFP+ and SFP/SFP+ slots.
40 GE QSFP+ Transceivers, Short Range	FG-TRAN-QSFP+SR	40 GE QSFP+ transceivers, short range for all systems with QSFP+ slots.
40 GE QSFP+ Transceivers, Long Range	FG-TRAN-QSFP+LR	40 GE QSFP+ transceivers, long range for all systems with QSFP+ slots.
10 GE SFP+ Active Direct Attach Cable, 10m/32.8 ft	SP-CABLE-ADASFP+	10 GE SFP+ active direct attach cable, 10m/32.8 ft for all systems with SFP+ and SFP/SFP+ slots.
1 GE SFP RJ45 transceiver module	FS-TRAN-GC	1 GE SFP RJ45 transceiver module for systems with SFP/SFP+ slots
10 GE Copper SFP+ Transceiver Module, up to 30m	FS-TRAN-SFP+GC	10 GE copper SFP+ RJ45 transceiver. Up to 30m.
10 GE SFP+ Transceiver Module, Short Range	FS-TRAN-SFP+SR	10 GE SFP+ transceiver module, short range for FortiSwitch with SFP+ and SFP/SFP+ slots.
10 GE SFP+ Transceivers, Extended Range	FS-TRAN-SFP+EX	10 GE SFP+ transceiver module, extended range for Fortinet systems with SFP+ slots.
10 GE SFP+ Transceivers, Long Range Multimode	FS-TRAN-SFP+LRM	10 GE SFP+ transceiver module, long range multimode for Fortinet systems with SFP+ slots.
40 GE QSFP+ to 4x 10 GE SFP+ optical breakout, 1m	FG-TRAN-QSFP-4XSFP	40 GE QSFP+ parallel breakout MPO to 4x LC connectors, 1m reach, transceivers not included.
40 GE QSFP+ to 4x 10 GE SFP+ optical breakout, 5m	FG-TRAN-QSFP-4SFP-5	40 GE QSFP+ parallel breakout MPO to 4x LC connectors, 5m reach, transceivers not included.
10 GE SFP+ Passive Direct Attach Cable	SP-CABLE-FS-SFP+1	10 GE SFP+ passive direct attach cable, 1m for systems with SFP+ and SFP/SFP+ slots.
10 GE SFP+ Passive Direct Attach Cable	SP-CABLE-FS-SFP+3	10 GE SFP+ passive direct attach cable, 3m for systems with SFP+ and SFP/SFP+ slots.

* Provides additional PoE capacity.

ORDER INFORMATION

Accessories

10 GE SFP+ Passive Direct Attach Cable	SP-CABLE-FS-SFP+5	10 GE SFP+ passive direct attach cable, 5m for systems with SFP+ and SFP/SFP+ slots.
10 GE SFP+ Passive Direct Attach Cable	SP-CABLE-FS-SFP+7	10 GE SFP+ passive direct attach cable, 7m for systems with SFP+ and SFP/SFP+ slots.
40 GE QSFP+ Passive Direct Attach Cable	SP-CABLE-FS-QSFP+1	40 GE QSFP+ passive direct attach cable, 1m for systems with QSFP+ slots.
40 GE QSFP+ Passive Direct Attach Cable	SP-CABLE-FS-QSFP+3	40 GE QSFP+ passive direct attach cable, 3m for systems with QSFP+ slots.
40 GE QSFP+ Passive Direct Attach Cable	SP-CABLE-FS-QSFP+5	40 GE QSFP+ passive direct attach cable, 5m for systems with QSFP+ slots.

For details of Transceiver modules, see the [Fortinet Transceivers datasheet](#).



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